

AAAV GUN & AMMO UPDATE NDIA GUN AND AMMO SYMPOSIUM

Major Peter W. Cushing USMC AAAV Firepower Project Officer





	Report Docum	entation Page
Report Date 09Apr2001	Report Type N/A	Dates Covered (from to)
Title and Subtitle AAAV Gun & AMMU Update NDIA Gun and AMMO Symposium		Contract Number
		Grant Number
		Program Element Number
Author(s) Cushing, Peter W.		Project Number
		Task Number
		Work Unit Number
Performing Organization Name(s) and Address(es) USMC		Performing Organization Report Number
Sponsoring/Monitoring Agency Name(s) and Address(es) NDIA (National Defense Industrial Association) 211 Wilson Blvd, STE. 400 Arlington, VA 22201-3061		Sponsor/Monitor's Acronym(s)
		Sponsor/Monitor's Report Number(s)
Distribution/Availability Approved for public releas		
Supplementary Notes Proceedings from the 36th Sponsored by NDIA	Annual Gun & Ammunition	n Symposium & Exhibition 9-12 April 2001
Abstract		
Subject Terms		
Report Classification unclassified		Classification of this page unclassified
Classification of Abstract unclassified		Limitation of Abstract UU
Number of Pages 16		

г



TARGETS OF INTEREST

- Infantry/ATGM
- Lightly Armored Vehicles (1,500-2,000m)
- Coastal Naval Combatants (1,000 - 4,000m)
- Bunkers/Urban/Material Targets







Lethality Testing Overview





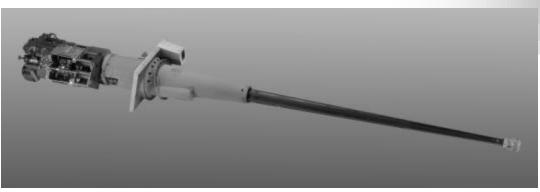
Where Have We Been.....

- AAAV adopts 30mmx173mm: July 97
- Worked with Boeing to Develop Mk 44
 30/40mm Gun from Bushmaster II
- Mk 44 30/40mm Automatic Gun Qualified
- (16) NDI rounds of Ammunition Qualified
- Commenced NATO STANAG Process for 30mmx173mm

.....All within 3 years



MK 44 Mod 1 30/40mm Automatic Gun



- MK44 selected by AAAV, LPD-17, Norway, Switzerland, Finland
- Significant interest from DD-51, DD-21, FFG, and USCG
- Over 37,000 rounds fired through Qualification Gun with no closed bolt stoppages or chargeable failures, over 20,000 round barrel life
- U.S. Navy Weapon System and Explosive Safety Review Board (WSESRB) Qualified for Service Use during 4th Quarter FY00



30mm AMMO to WSESRB



•(2) **APFSDS-T**

- •(2) **TP**
- •(5) HEI w/ 3 FUZES (3) MPLD

•(3) **TP-T**

• (1) **APDS**



APFSDS-T



- Highly Successful FCT completed Sept 00.
- Both candidates met requirements.
- Follow-on procurement to support EMD and Joint Live Fire.
- Both rounds will satisfy AAAV Operational Requirements.



HE AMMUNITION

- Only until Airburst is fielded.
- •Continuing to evaluate various MPLD, HEI, and SAPHE rounds.
- •Decision will be based on best NDI round or combination of rounds balancing cost against lethality across the AAAV HE target matrix.



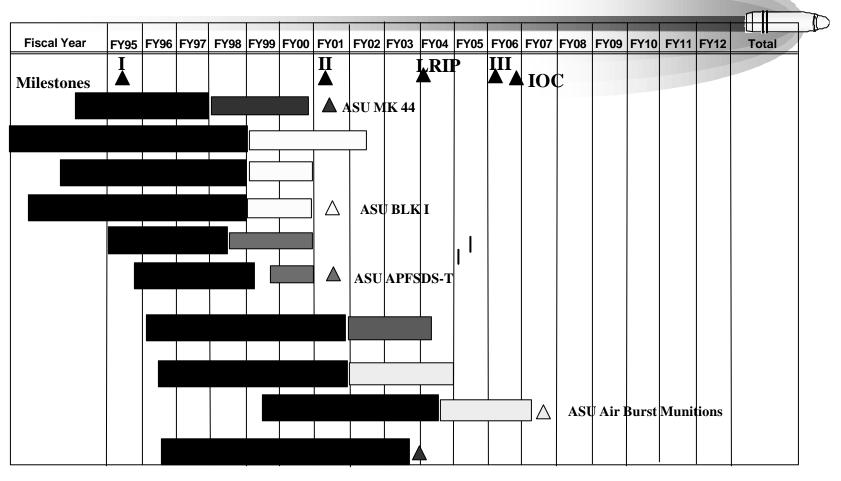
AIRBURST



- •Will provide dramatic increase in lethality against primary target: *INFANTRY*.
- •FCT proposal submitted for FY 02 start to evaluate two foreign candidates.
- •Concurrent evaluation of one or two domestic candidates.
- •Contract in 1st Qtr FY 02.
- •Commence testing in 2nd Qtr FY03.
- Down select at end of FY04.



MK 44 Gun and Ammo Master Plan



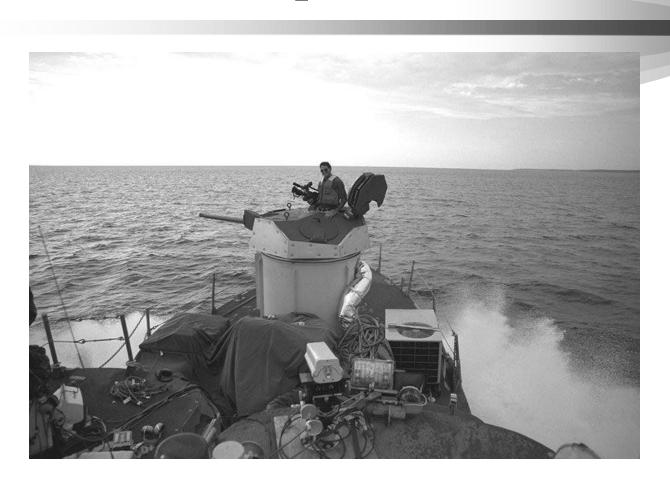


MK46 on PB 777





MK46 Space Claim





PB777 Targets

• 16' X 16' Billboard Target

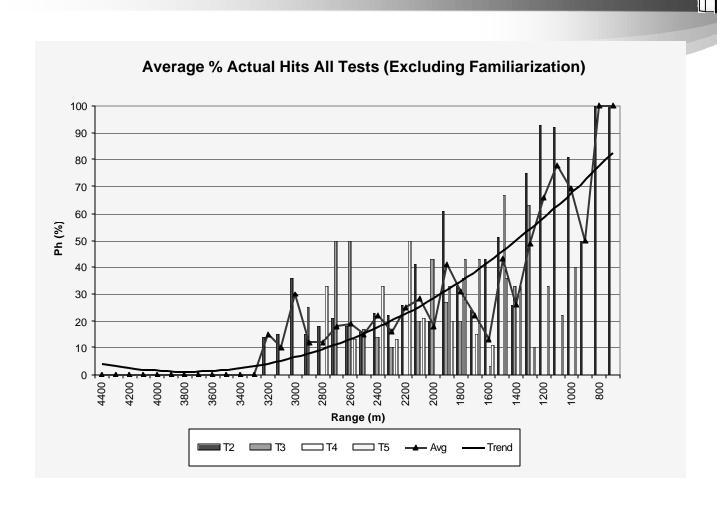
• Improved Surface Towed Target (ISTT)

• QST -33 Seaborne Powered Target (SEPTAR)





PB 777 Percent Actual Hits





PB 777 Demo Summary



- 34 test runs; 2,000 rds fired; 25% hits
- All targets hit multiple times prior to keep out of 1000m
- "..Mk46 demonstrated approximately twice the engagement range and twice the Ph when compared to systems previously tested under similar test plans." (pg 35, NSWCCDD/MP-00/110)



Questions?



Http://www.aaav.usmc.mil